CLAIMS

1. A method for production of a compound represented by the general formula (I-A) or the general formula (1-B), comprising the step of treating a compound represented by the general formula (II-A) or the general formula (II-B) with thionyl chloride as follows:

wherein R^1 is an optionally substituted lower alkyl, an optionally substituted aryl, an alkynyl, or an optionally substituted heteroaryl; R^2 is a lower alkyl, an optionally substituted aralkyl, or an optionally substituted heteroarylalkyl; and R^3 is a lower alkyl.

- 2. A method for production according to claim 1, wherein the compound represented by the general formula (II-A) or the general formula (II-B) is allowed to react with 1.0 to 5.0 equivalents of thionyl chloride in a solvent of toluene, ethyl acetate, cyclohexane, or acetonitrile at 30°C to reflux.
- 3. A method for production according to claim 1, wherein the compound represented by the general formula (II-A) or the general formula (II-B) is allowed to react with 1.0 to 3.0 equivalents of thionyl chloride in a solvent of toluene, ethyl acetate, cyclohexane, or acetonitrile at 60°C to 80°C.

4. A method for production of a compound represented by the general formula (III-A) or the general formula (III-B), comprising the step of subjecting a compound represented by the general formula (I-A) or the general formula (I-B) obtained by a method according to any of claims 1-3 to a hydrolysis as follows:

wherein R1 and R3 are as described above.

5. A method for production of a compound represented by the general formula (IV-A) or the general formula (IV-B), comprising the step of subjecting a compound represented by the general formula (III-A) or the general formula (III-B) obtained by a method according to claim 4 to a hydrolysis as follows:

OH
$$R_1$$
OH R_1
OH R_1
COOH
(III-A)

OH
$$_{IIII}$$
 $_{IIII}$ $_{III}$ $_{IIII}$ $_{III}$ $_{III}$ $_{III}$ $_{IIII}$ $_{IIII}$ $_{IIII}$ $_{IIII}$ $_{IIII}$ $_{IIII}$ $_{IIII}$ $_{IIII}$ $_{IIII}$ $_{IIII$

wherein R¹ is as described above.

6. A method for production of a compound represented by the general formula (I-A) or the general formula (I-B), comprising the step of protecting the amino group of a compound represented by the general formula (V-A) or the general formula (V-B) with $R^2OC(=0)$ -, wherein R^2 is as described above, esterifying the carboxyl group thereof, and treating with thionyl chloride as follows:

HO LIMIT COOK
$$R_1$$
 OT R_1 OT R_1 OT R_1 OT R_1 OT R_1 OT R_2N^{III} COOK R_3 R_4 R_5 R_5 R_6 R_7 R_8 R_8 R_1 R_1 R_1 R_1 R_1 R_2 R_1 R_1 R_2 R_3 R_4 R_5 R_6 R_6 R_1 R_1 R_1 R_1 R_2 R_3 R_4 R_5 R_6 R_6 R_1 R_1 R_1 R_1 R_1 R_2 R_3 R_4 R_5 R_6 R_6 R_6 R_6 R_6 R_6 R_7 R_8 R_8 R_1 R_1 R_1 R_1 R_2 R_3 R_4 R_5 R_6 R_6 R_6 R_6 R_6 R_6 R_7 R_8 R_8

wherein R1 and R3 are as described above.

7. A method for production of a compound represented by the general formula (VI):

wherein R¹ is as described above, and Y is an optionally substituted alkyl, comprising the step of subjecting a compound represented by the general formula (III-A) or the general formula (III-B) obtained by a method according to claim 4 to a peptide bond formation.

- 8. A method for production according to claim 4, wherein R^1 is phenyl, 5-imidazolyl, methyl, isopropyl, ethynyl, or 1-propynyl.
- 9. A method for production according to claim 4, wherein R^2 is a lower alkyl, an aralkyl, or a heteroarylalkyl.
- $\label{eq:condition} 10. \quad A \text{ method for production according to claim 4,} \\ \text{wherein } R^2 \text{ is an aralkyl.}$
- $\mbox{11.} \quad \mbox{A method for production according to claim 4,} \\ \mbox{wherein R^1 is methyl and R^2 is benzyl.}$